

**ARIZONA GAME AND FISH DEPARTMENT  
HABITAT PARTNERSHIP COMMITTEE  
HABITAT ENHANCEMENT AND WILDLIFE MANAGEMENT PROPOSAL**

Game Branch / HPC Project Number: 12-508

**PROJECT INFORMATION**

**Project Title:** AGFD # 689 Picacho Mountain #5 Wildlife Water Redevelopment

**Region and Game Management Unit:** Region V, GMU 37A

**Local Habitat Partnership Committee (LHPC):**

- Tucson

**Was the project presented to the LHPC?**

YES[X] NO[]

**Has this project been submitted in previous years?** YES[] NO[X]

**If Yes, was it funded?** YES[] NO[] → **Funded HPC Project #(s):**

**Project Type:** Wildlife Water Catchment Redevelopment

**Brief Project Summary:** This project will be a complete redevelopment of wildlife water catchment. Due to continuously deteriorating material conditions, this wildlife water catchment will require replacement of its collection apron and storage tank, along with adding an additional drinker. The initial concrete system was installed in 1960's. The ring tank and tin apron were added in the 1980's and has reached the end of its lifespan. The wood-frame of the apron has rotted out and its ability to collect water is extremely limited. The original cement vault and apron are operational, but need to be resealed.

**Big Game Wildlife Species to Benefit:** Mule Deer, Javelina, Bighorn Sheep, Mountain Lion

**Implementation Schedule** (Month/Day/Year):

Project Start Date: September 1, 2012

Project End Date: June 30, 2014

**Environmental Compliance:**

NEPA Completed: Yes[] No[X] N/A[]

Projected Completion Date: March 1, 2012 (D. Tersey BLM CatEx)

State Historic Preservation Office - Archaeological Clearance:

Yes[] No[X] N/A[]

Projected Completion Date: Field surveys already conducted, survey report will be forwarded to BLM when completed through AZGFD.

Arizona Game and Fish Department EA Checklist: N/A[]

To be Completed by: Joe Currie

Projected Completion Date: When funded

**PROJECT FUNDING**

**Special Big Game License Tag Funds Requested:**

\$26,324.00

**Cost Share or Matching Funds:**

\$8,461.00

**Total Project Costs:**

**\$34,785.00**

**PARTICIPANT INFORMATION**

**Applicant** (please print):

Diane Tilton, Wildlife Manager

**Address:**

555 N. Greasewood Rd  
Tucson, AZ 85745

**E-mail:**

dtilton@azgfd.gov

**Telephone:** (520) 975-6149

**Date:** Aug 21, 2012

**Project has been coordinated with:**

Darrell Tersey, BLM – Tucson Field Office; Ed Jarke, Development Branch

## **NEED STATEMENT – PROBLEM ANALYSIS:**

The Picacho Wildlife Water Catchments are an extremely important water source for the wildlife of the Picacho Mountains and surrounding area. There are no other dependable water sources in the area besides the AGFD water catchments. There are 6 working catchments around the Picacho Mountains, and one non-functioning catchment on top of Newman Peak (hopefully redeveloped at a later date). The apron and tank installed in the 1980's are failing, and the cement apron and tank from the original catchment are not adequate to supply continuous water to the wildlife. A desert bighorn sheep ram was found dead (caught in barbed wire fence) about 4 miles to the northwest of this catchment in August 2012. It is unclear how often sheep are visiting the Picacho Mountains, but it's important to maintain a dependable water supply to encourage the animals to stay.

Mule deer numbers and distribution have been declining throughout the West since the latter third of the 20<sup>th</sup> century. To address this concern, the Western Association of Fish and Wildlife Agencies (WAFWA), an organization represented by 17 states and four Canadian provinces, created a Mule Deer Working Group (Group). Using adaptive resource management, the Group sent out to find "solutions to our common mule deer management problems" in the seven different ecoregions in North America. Overall, loss and degradation of habitat was determined to be the single greatest factor that has caused declines in mule deer. In the Southwest Desert Ecoregion, rainfall and competition with livestock were found to be the two biggest limiting factors. The number one recommendation of the Group to improve mule deer management in the Southwest Desert Ecoregion was to create sources of water in areas where water is limiting and where other potentially limiting factors are being addressed. Also, consistent with the Group's recommendation is the Department's Species Management Guidelines (SMG) which provides goals, objectives, strategies and procedures for a specific species. The SMG outlines four ways to improve and enhance deer habitat to accomplish the overall goal of increasing mule deer populations to levels that provide diverse recreational opportunities. Number one on the list is: protect and maintain current water sources.

## **PROJECT OBJECTIVES:**

This redevelopment will require removing the current 28' x 28' wood frame and corrugated tin collection apron, and replacing it with a 24' x 60' R-panel collection apron; seal and paint the existing 50' x 42' concrete apron; muck out and seal the existing 30' deep x 7' wide x 21' (2,100 Gal.) concrete vault; replace existing 180' x 200' barbed wire fence with standard piperail fence; install 3' deep x 4' wide fiberglass walk-in trough; remove 3' deep x 18' metal ring tank and liner and replace with 3' x 18' fiberglass ring tank (5700 Gal.). A trail camera and protective case will be added to observe and document wildlife using the updated catchment.

This reliable water source will:

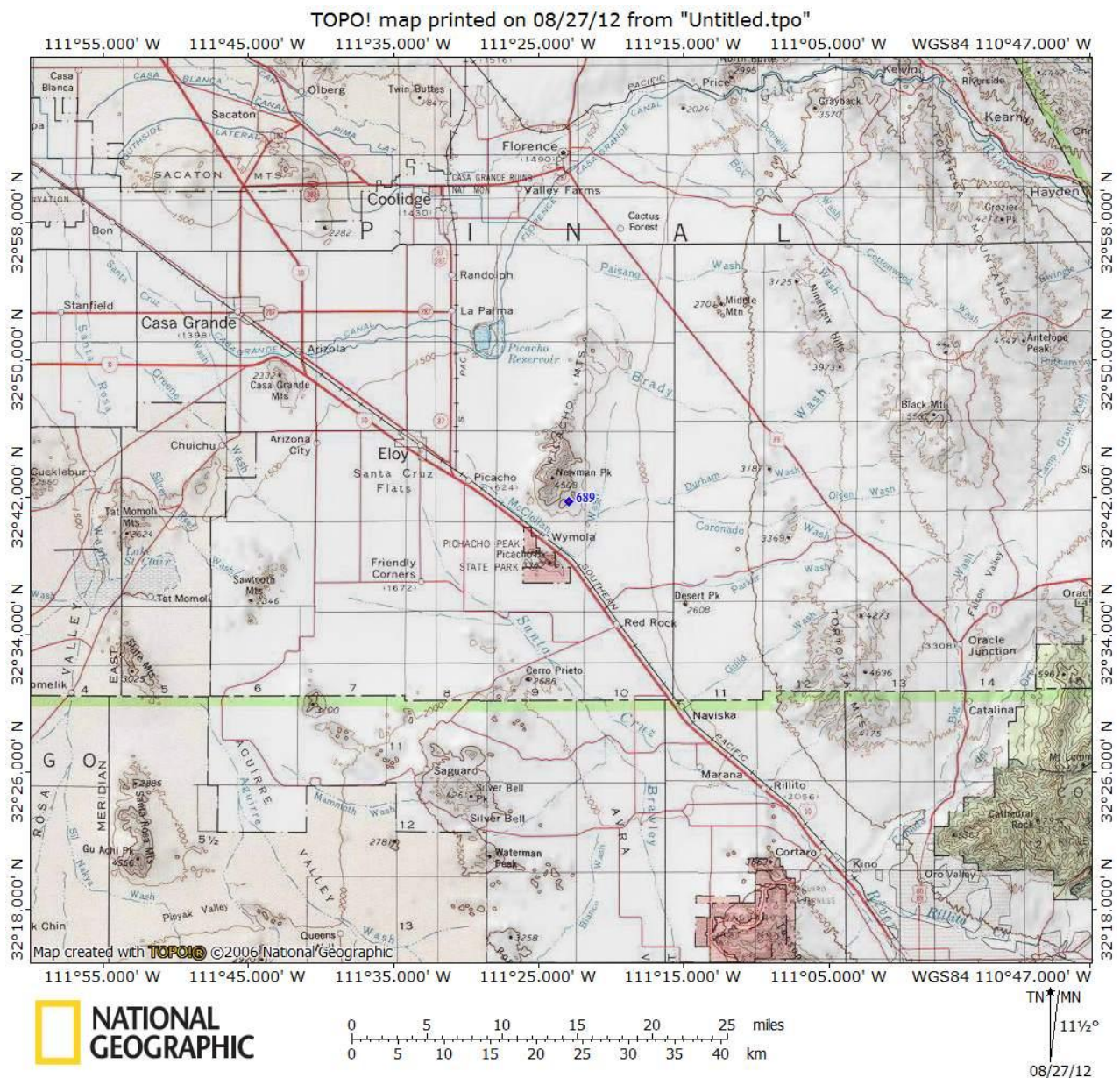
- Increase deer and javelina populations by providing a dependable, long term, self-sustaining quality water source (9,800 Gal total).
- Increase hunter opportunity.
- Install a system that has a long lifespan (40-50 years for storage and collection systems, 25 years for drinking troughs)
- Install a system that does not require supplemental hauling except in rare or exceptional circumstances
- To install a system that is accessible and that requires minimal routine maintenance

## PROJECT DESCRIPTION AND STRATEGIES:

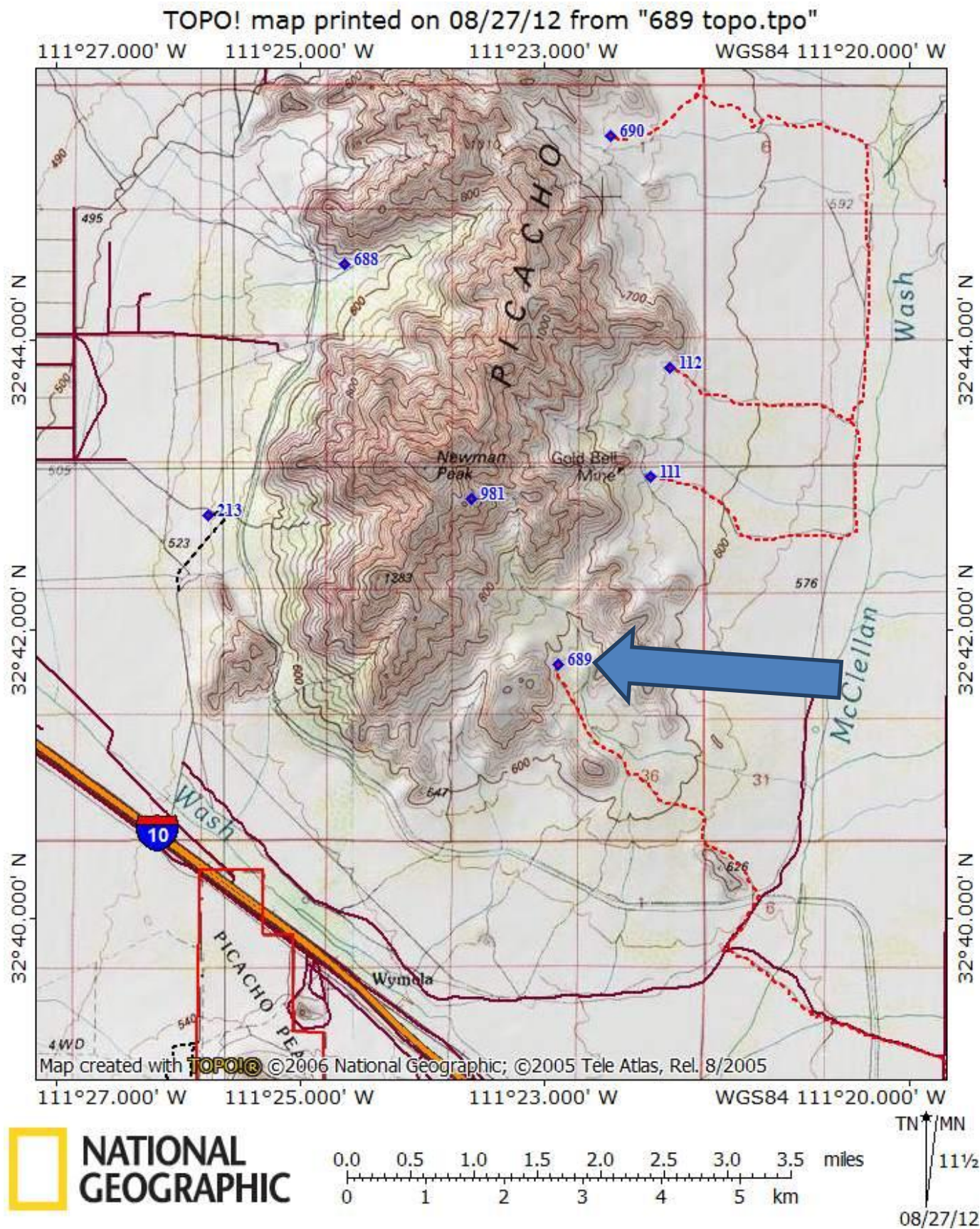
- Reseal and paint existing cement apron.
- Muck out and reseal existing cement tank.
- Replace existing barbed wire fence with standard piperail fence
- Install new fiberglass trough
- Remove PVC plumbing that connects tanks and replace with overflow plumbing
- Remove metal ring tank and line and replace with fiberglass ring tank (5,700 Gal)
- Remove wood frame and corrugated tin apron and replace with metal frame and R-panel apron.

## PROJECT LOCATION:

This project is located on the southwest side of the Picacho Mountains at 32°41.751'N, 111°22.894'W.











**LAND OWNERSHIP AT THE PROJECT SITE(S):**

- Bureau of Land Management (Tucson Office)

**HABITAT DESCRIPTION:**

The Picacho Mountains are an area of relatively steep, rugged terrain northwest of Tucson, surrounded by desert flats. They are part of a small complex of mountains and hills that includes the Picacho Peak (separated by Interstate 10), and the Durham and Suizo hills to the east. Primary habitat is Sonoran desert scrub. The CAP canal runs along the west side of the Picacho Mountains creating a barrier to wildlife, except for a few crossing installations.

**ITEMIZED USE OF FUNDS:**

Special Big Game License Tag Funds

18' x 3' fiberglass ring tank	\$10,010.00
60' x 24' Metal frame and R-panel collection apron	\$6,800.00
3' x 4' standard fiberglass wildlife trough	\$3294.00
Plumbing	\$750.00
Concrete/mortar	\$500.00
180' x 200' Pipe rail Fence	\$4470.00
Remote Digital Monitoring Camera	\$500
<b>Total</b>	<b>\$26,324.00</b>

Cost Share or Matching Funds (for volunteer labor rates please refer to the worksheet below)

**Volunteer Labor**                      **\$8,461**

**LIST COOPERATORS AND DESCRIBE POTENTIAL PARTICIPATION:**

AGFD SS Development Branch  
AGFD Region V  
BLM – Tucson Field Office

**WOULD IMPLEMENTATION OF THIS PROJECT ASSIST IN PROVIDING, MAINTAINING, OR FACILITATING RECREATIONAL ACCESS?**

YES[] NO[] N/A[X]

**PROJECT MONITORING PLAN:**

Project would be monitored by SSDV up to and during redevelopment, to include all required federal and state compliance paperwork; all project material and flight expenses; all state and federal volunteer paperwork and a final construction completion report with 'as built' drawings. This information will be housed in AGFD SSDV Water Development hard files and the SSDV Water Development data base located at the AGFD Headquarters, 5000 W. Carefree Highway, Phoenix, AZ 85086. Regular welfare monitoring will occur as deemed appropriate by the GMU 37A Wildlife Manager with occasional field support from the ADBSS.

A remote digital camera will be used to monitor density and frequency of wildlife water use. This will enable the Wildlife Manager to make better informed decisions for the management of wildlife within

GMU 37A.

Water levels will be monitored at least twice per year with emphasis during the warmer drier months by the Wildlife Manager. Additional monitoring will be conducted as needed.

**PROJECT MAINTENANCE:**

Any project maintenance will be assumed by the AGFD SSDV Branch and AGFD Region V. Minor maintenance will also be conducted as needed by the Wildlife Manager. The AGFD Development Branch will be responsible for major maintenance issues.

**PROJECT COMPLETION REPORT TO BE FILED BY:**

AGFD Region V GMU 37A Wildlife Manager.

## **ARIZONA GAME AND FISH DEPARTMENT** **WATER DEVELOPMENT WORKSHEET**

**PROJECT TITLE:** AGFD # 689, "Picacho Mountains #5" Wildlife Water Redevelopment

- 1) **Is the water development listed as a priority in the most recent "Wildlife Water Development Annual Implementation Schedule?"**

Yes, as a Second Priority in 2002.

- 2) **Please list the Development Branch personnel and date coordinated with for this project.**  
Ed Jahrke, July 2012

- 3) **What is the estimated annual inches of precipitation for the area? (mark one)**

☐2-4 ☐4-6 ☐6-8 ☒8-10 ☐10-12 ☐12-14 ☐14-16 ☐ >16

- 4) **Is there a perennial water source available to big game within four miles of this project?**

YES☒ (please complete #5 below) NO☐ (skip #5 below)

- 5) **For the accessible, perennial water source nearest this project:**

Name of water source: AGFD # 111

Type of water source (catchment, spring, dirt tank): Catchment

Ownership of water source: AGFD

Distance in miles from project: 1.66 miles

- 6) **Is the target wildlife species a result of transplant efforts?** YES☐ NO☒

- 7) **Please list any special land management status for the project site (i.e. Wilderness, National Park, National Monument). If private land, list landowner.**

Bureau of Land Management – Tucson Field Office

- 8) **Please provide the following information about access to the proposed site:**

Type of access (mark one): ☐2x4 vehicles ☒4x4 only ☐foot only\*\*

\*\*If foot access only: Distance in miles: \_\_\_\_\_ Approximate hiking time: \_\_\_\_\_

-- Does access to this site require crossing private or tribal lands? YES☐ NO☒

-- Please describe any restrictions to public access:

- 9) **Please list below (or on a separate sheet) the material type and dimensions of each component proposed to be added, modified, or repaired.**

1 – 18' diameter x 3' deep' fiberglass ring tank added;

1 – 60' x 24' R-panel collection apron, including all support sub structures (metal frame) and 24' fiberglass gutter added;

1 – 3' deep x 4' long x 3' wide fiberglass wildlife-friendly walk-in trough added;

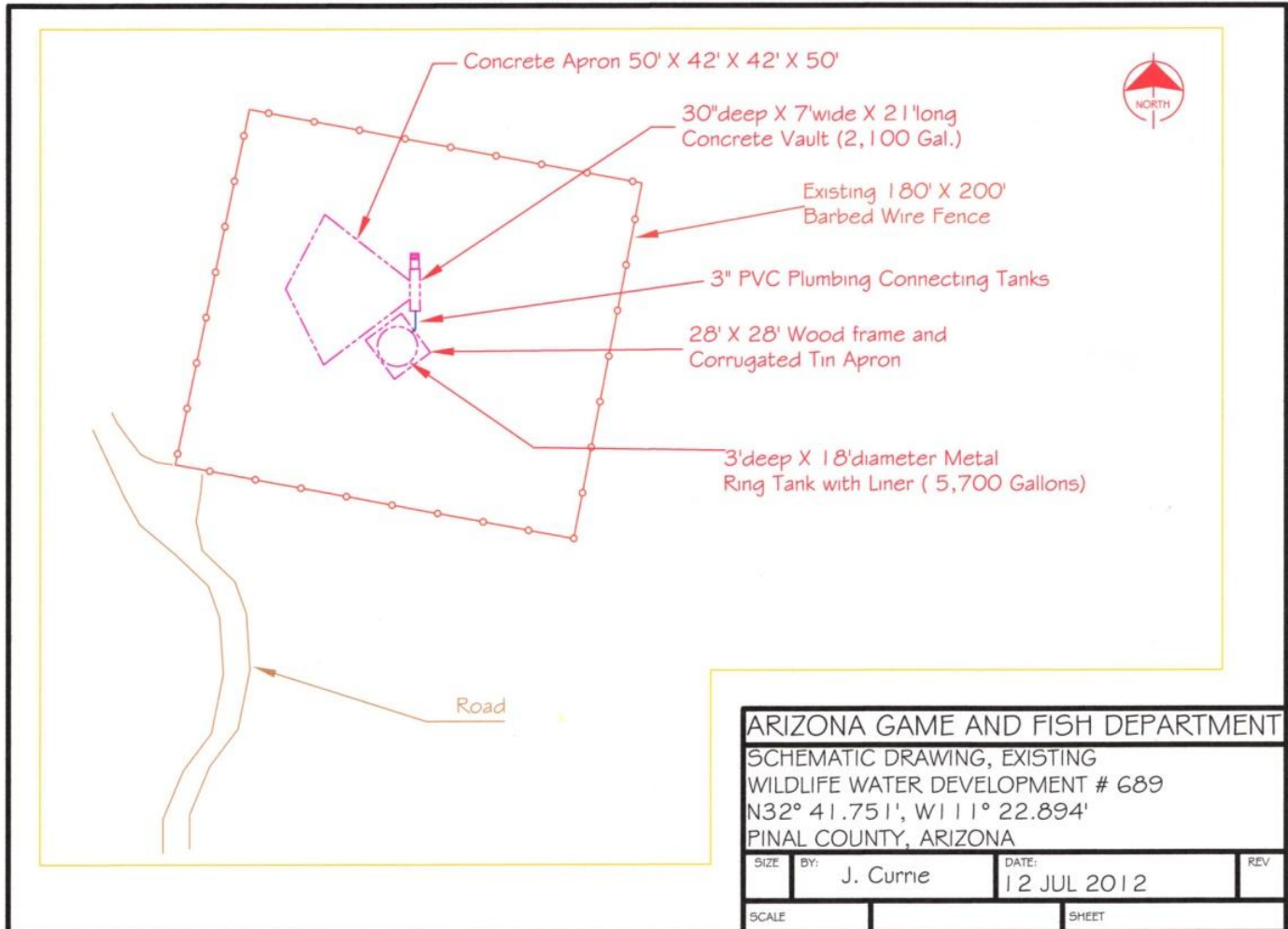
Sealant and paint for cement apron and catchment

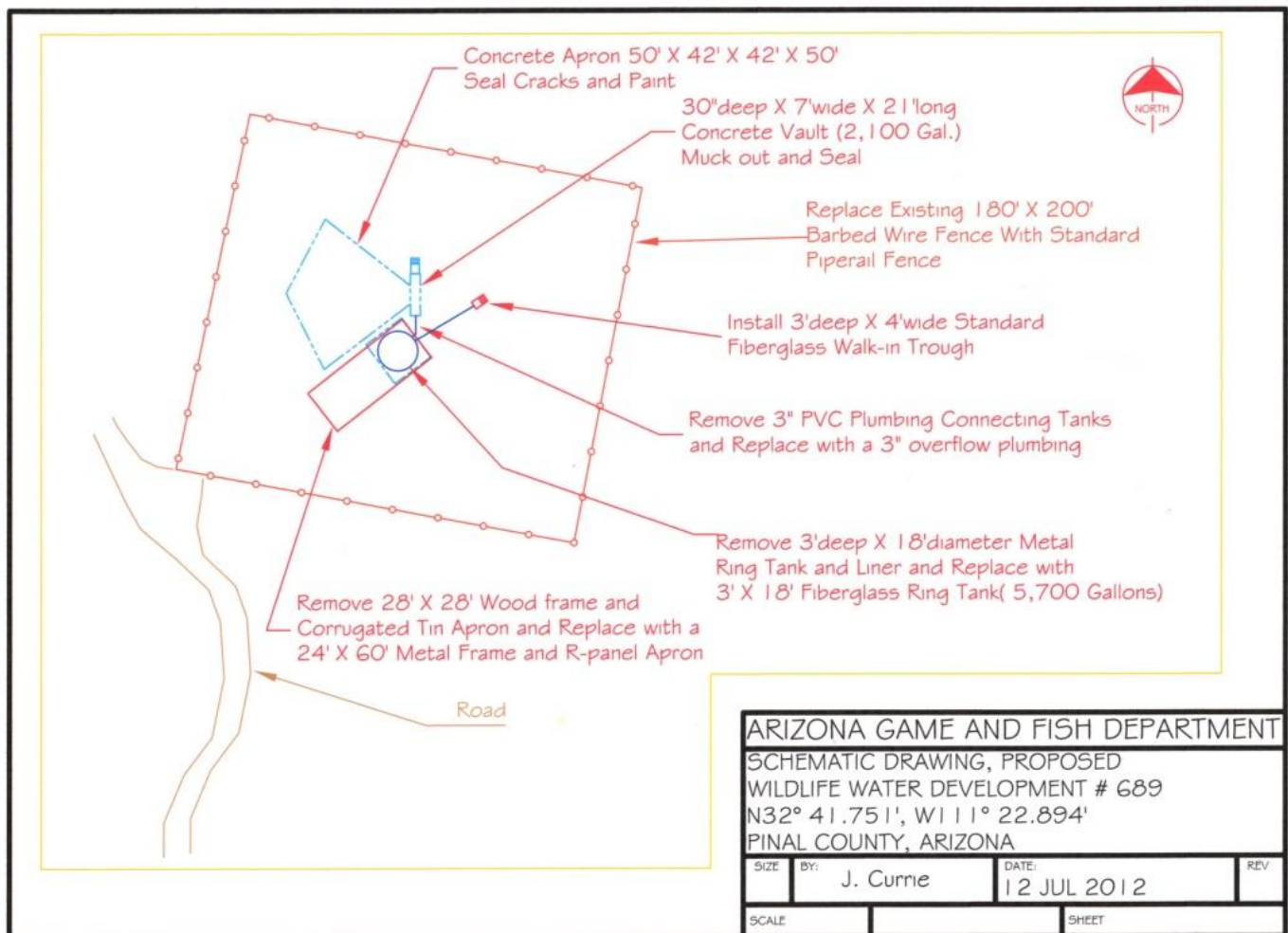


**10) Was a site visit completed?** Yes[X] No[]

If Yes, please list personnel that attended and date.

Ed Jahrke, Joe Currie – AGFD Development Branch; Diane Tilton - AGFD GMU 37A Wildlife Manager, July 5, 2012





## **ARIZONA GAME AND FISH DEPARTMENT**

# **VOLUNTEER HOURLY RATES AND CLASSIFICATIONS WORKSHEET**

**PROJECT TITLE:** AGFD # 689, 'Picacho Mountains #5' Wildlife Water Redevelopment

The value of volunteer labor should be calculated at the hourly rate of an employee doing similar work, or using hourly rates from the Arizona Department of Administration's Human Resource web site, plus a standard ERE rate of 35%. [http://www.hr.az.gov/HR\\_Professional/Class\\_Comp/PDF/alphacovered.pdf](http://www.hr.az.gov/HR_Professional/Class_Comp/PDF/alphacovered.pdf)

\$0.445/mile should be the calculation used for mileage.

<b>Water Development</b>	<b>Volunteer Hours</b>	<b>Volunteer Miles</b>	<b>Hourly Rate</b>	<b>Estimated Value</b>
	350	4000	\$14.14	\$8461.00
<b>Habitat Restoration and Clean Up</b>	<b>Volunteer Hours</b>	<b>Volunteer Miles</b>	<b>Hourly Rate</b>	<b>Estimated Value</b>
			\$14.14	
<b>Fisheries</b>	<b>Volunteer Hours</b>	<b>Volunteer Miles</b>	<b>Hourly Rate</b>	<b>Estimated Value</b>
			\$14.14	
<b>Nongame Branch Project</b>	<b>Volunteer Hours</b>	<b>Volunteer Miles</b>	<b>Hourly Rate</b>	<b>Estimated Value</b>
			\$14.14	
<b>Misc/office work</b>	<b>Volunteer Hours</b>	<b>Volunteer Miles</b>	<b>Hourly Rate</b>	<b>Estimated Value</b>
			varies	
<b>Community Services</b>	<b>Volunteer Hours</b>	<b>Volunteer Miles</b>	<b>Hourly Rate</b>	<b>Estimated Value</b>
			\$7.44	
<b>Events and Other</b>	<b>Volunteer Hours</b>	<b>Volunteer Miles</b>	<b>Hourly Rate</b>	<b>Estimated Value</b>
			\$14.14	
<b>Research Branch</b>	<b>Volunteer Hours</b>	<b>Volunteer Miles</b>	<b>Hourly Rate</b>	<b>Estimated Value</b>
			\$14.14	
<b>Wildlife Area Hosts</b>	<b>Volunteer Hours</b>	<b>Volunteer Miles</b>	<b>Hourly Rate</b>	<b>Estimated Value</b>
			\$17.44	
<b>Education Programs</b>	<b>Volunteer Hours</b>	<b>Volunteer Miles</b>	<b>Hourly Rate</b>	<b>Estimated Value</b>
			\$16.07	
<b>Totals</b>	<b>350</b>	<b>4000</b>		<b>\$8461.00</b>